

**AMENDMENTS TO THE CLAIMS**

1. (Original) A target object inspection system comprising:
  - a first detector for detecting radiation from a radiation source;
  - a second detector for detecting radiation from the target object;
  - a mobile platform including the first detector, the second detector and the radiation source; and
  - a boom connected to the radiation source and the mobile platform, wherein the boom is deployed so as to effect passage of the target object between the radiation source and the first and second detectors.
2. (Original) The system according to claim 1, wherein the first detector is a photon detector.
3. (Original) The system according to claim 1, wherein the second detector is a neutron detector.
4. (Original) The system according to claim 1, wherein the first detector detects radiation from the radiation source after the radiation passes through the target object.
5. (Original) The system according to claim 1, wherein the radiation source is a gamma radiation source.
6. (Original) The system according to claim 3, wherein the neutron detector comprises at least one helium detector.
7. (Original) The system according to claim 2, further comprising:
  - a counter for discretely counting photons received by the first detector; and
  - a display responsive to the counter for generating a display of the target object in response to the counter.
8. (Original) The system according to claim 3, further comprising an indicator for indication the presence of neutrons.
- 9-23. (Cancelled).
24. (New) A target object inspection system comprising:
  - a first detector for detecting radiation from a radiation source;

\_\_\_\_\_ a second detector for detecting radiation from the target object;  
\_\_\_\_\_ a mobile platform including the first detector, the second detector and the radiation  
source; and  
\_\_\_\_\_ a boom connected to the radiation source and the mobile platform, wherein the boom is  
deployed so as to effect passage of the target object between the radiation source and the mobile  
platform, including the first and second detectors.

25. (New) The system according to claim 24, wherein the first detector is a photon detector.

26. (New) The system according to claim 24, wherein the second detector is a neutron  
detector.

27. (New) The system according to claim 24, wherein the first detector detects radiation from  
the radiation source after the radiation passes through the target object.

28. (New) The system according to claim 24, wherein the radiation source is a gamma  
radiation source.

29. (New) The system according to claim 26, wherein the neutron detector comprises at least  
one helium detector.

30. (New) The system according to claim 25, further comprising:  
\_\_\_\_\_ a counter for discretely counting photons received by the first detector; and  
\_\_\_\_\_ a display responsive to the counter for generating a display of the target object in response  
to the counter.

31. (New) The system according to claim 26, further comprising an indicator for indication  
the presence of neutrons.

32. (New) A target object inspection system comprising:  
\_\_\_\_\_ a first detector for detecting radiation from a radiation source;  
\_\_\_\_\_ a second detector for detecting radiation from the target object;  
\_\_\_\_\_ a mobile platform capable of movement during the inspection of the target object  
including the first detector, the second detector and the radiation source; and

\_\_\_\_\_ a boom connected to the radiation source and the mobile platform, wherein the boom is deployed so as to effect passage of the target object between the radiation source and the first and second detectors.

33. (New) The system according to claim 32, wherein the first detector is a photon detector.

34. (New) The system according to claim 32, wherein the second detector is a neutron detector.

35. (New) The system according to claim 32, wherein the first detector detects radiation from the radiation source after the radiation passes through the target object.

36. (New) The system according to claim 32, wherein the radiation source is a gamma radiation source.

37. (New) The system according to claim 34, wherein the neutron detector comprises at least one helium detector.

38. (New) The system according to claim 33, further comprising:

\_\_\_\_\_ a counter for discretely counting photons received by the first detector; and

\_\_\_\_\_ a display responsive to the counter for generating a display of the target object in response to the counter.

39. (New) The system according to claim 34, further comprising an indicator for indication the presence of neutrons.